Claims

- 1. The use of osmolytes as well as their equally effective derivatives and/or pharmacologically compatible salts thereof for the combating of diseases caused by the effects of suspended particulate on the tissue of the lungs and/or the cardiovascular diseases that are related with them.
- 2. Use of osmolytes as well as their equally effective derivatives and/or pharmacologically compatible salts thereof for the production of inhalable pharmaceutical preparations aimed at combating of diseases caused by the effects of suspended particulate on the lungs tissue and/or the cardiovascular diseases that are related with them.
- 3. Use according to claims 1 or 2, characterized in that ectoine, hydroxyectoine, firoin-A, diglycerol phosphate, cyclic diphosphoglycerate, 1,3 dimannosyl di-myo-inositol phosphate (DMIP) and/or diinositol phosphate are used as osmolytes.
- 4. Use according to claim 3, characterized in that ectoine and/or hydroxyectoine, their equally effective derivatives and/or their pharmacologically compatible salts are used as osmolytes.
- 5. Use according to any one of claims 1 to 4, characterized in that further active agents are added to the preparation.
- 6. An inhalation device filled with active agent, the atomizable solid or liquid contents of which consisting of an active agent composition comprising at least one osmolyte or its derivatives and/or pharmacologically acceptable salts thereof.
- 7. Inhalation device according to claim 6, characterized in that the active agent composition comprises as osmolyte ectoine, hydroxyectoine, firoin, firoin-A, diglycerol phosphate, cyclic diphosphoglycerate, 1,3 dimannosyl di-myo-inositol

phosphate (DMIP) and/or diinositol phosphate.

- 8. Inhalation device according to claims 6 and 7, characterized in that the active agent composition contains as osmolytes ectoine and/or hydroxyectoine, their equally effective derivatives and/or their pharmacologically compatible salts.
- 9. Inhalation device according to claims 6 to 8 in the form of a filled inhaler for liquid pharmaceutical preparations.
- 10. Inhalation device according claims 6 to 8 in the form of a filled powder inhaler.